TRAFFIC SAFETY

Children and Traffic Safety

Each year the Guam Fire Department responds to many emergencies involving pedestrians. Traffic related incidents account for more than one-third of the fatalities in children under 14 years of age. According to the Department of Transportation, more than 1,000 children die each year as pedestrians.

A common myth is that pedestrians ALWAYS have the right of way. Pedestrians have the right of way on sidewalks and designated pedestrian crossings with signals. Many pedestrian-vehicle incidents are the fault of the pedestrian. It is important for children and adults to learn safe pedestrian skills.

Knowing the correct way to walk near traffic and how to cross the street is vital to a person's health and well being. With adult supervision, a child's ability to deal with traffic can improve dramatically.

Several factors make children susceptible to car/pedestrian incidents. Among them, children:

- Have a lower profile in traffic
- Have a narrower field of view
- Cannot detect the direction of sound
- Cannot accurately judge the approach of vehicles
- Once in motion, like to stay in motion
- Mix fantasy with reality
- Often only concentrate on one thought at a time
- Are restless

The most common cause of pedestrian incidents involving children occurs when they dash out into the street at mid-block, for example, to chase a ball, or when they run through an intersection.

Each year the Guam Fire Department responds to hundreds of incidents involving cars, trucks, motorcycles and diesel trucks. Most of these involve collisions at the intersections of large surface streets.

Many children are injured or killed because they ride unrestrained in a vehicle. More than 75 percent of these incidents could have been prevented by the use of correctly worn seat belts or approved child safety seats.

Nationwide more than 5,000 children die each year as passengers in vehicular crashes. In many cases, no safety belt was worn and the child was sitting on the front seat during a short trip. In some cases, a child was riding unrestrained in back of an open pickup truck bed or camper.

Children must understand the importance of seat belt use. In fact, it's the law! Putting on a seat belt should become a routine habit. While there are a variety of reasons why people don't use seat belts, most are based on misconceptions and fallacies.

We can expect to be in a car crash once every 10 years, and a serious one every 20 years. At some point in their life, 85 percent of the population will be involved in a serious car crash. The forces involved are horrendous. A 150-pound person exerts a force of more than two tons in a 30-mile per hour collision. Yet, seat belts can reduce injuries and medical costs by 50 percent.

Proper use of the seat belt and shoulder strap is important. When using a seat belt, make sure to hear the "click" when you buckle-up. The seat belt and shoulder strap should be positioned snugly across the hips and shoulders. A seat belt incorrectly positioned above the hips may result in serious injury to abdominal organs in a crash. Likewise, the shoulder strap should be placed directly over the shoulder. Otherwise, a neck injury may result during a collision. Finally, avoid excessive slack in the belt.

Children should never share the use of a seat belt and they should not take their seat belts off until the vehicle has come to a complete stop. They should never sit in anyone's lap in a moving vehicle. A child sitting in someone's lap is the single, most dangerous place to be in a crash. It is impossible to hold them in a collision.

Child safety seats should be used from the first time the child is in a car until they are big enough to use an adult seat belt properly. Age appropriate car seats and travel vests are available. It is important to follow the manufacturer's instructions for correct use. Infant safety seats are designed to face the rear of the vehicle.

Always check the seat to ensure that the harness and belt are snug and secure. If a vehicle is equipped with a passenger side air bag, place the infant safety seat rear facing in the back seat of the car. NEVER place an infant seat in the front seat of a vehicle equipped with passenger side airbags. Some models of infant car seats can be used as infant carriers as well. Check the manufacturer's instructions to make sure that the seat can be used as a carrier AND a car seat. Some car seats are called convertibles. This means that they can be used as rear-facing infant seats, but then convert to forward facing toddler seats. Check the manufacturer's instructions for weight limits for each application of the car seat. Also check the instructions to see how and when a tether strap can be used.

For children weighing more than 22 pounds and who are **at least** 12 months of age, forward facing seats can be used. Some of these seats come equipped with a tether strap, which further secures the car seat. Read your vehicle owners manual to see if your vehicle has tether anchor locations. If so, contact your auto dealer to obtain a tether anchor kit.

As a child gets older, they should ride in approved booster seats, which help fill the gap between a child seat and regular use of a seat belt. Make sure to use booster seats with upper torso support, either by using a lap and shoulder belt or by using the harness supplied by the manufacturer. Again, follow the manufacturer's instructions carefully when

installing child safety seats. Arizona law requires the use of an approved child restraint seat for children up to age five, no matter how much they weigh.

The National Highway Traffic Safety Administration recommends that a child weighs around 80 pounds and is between four and five feet tall before they can use a regular vehicle seat belt. Their backs should rest comfortably against the back of the vehicle seat and their legs should bend at the edge of the seat.

Facts and Figures

Each year 15,000 lives could be saved if everyone wore seat belts. At 30 miles per hour, an unrestrained passenger weighing 150 pounds exerts the force of more than two tons as it crashes against another object. This is enough to kill!

Only 61 percent of Americans always use their seat belts when they're driving in their car. Another 30 percent sometimes use the belts and nine percent never do.

Myths About Seat Belts

- **I don't need a seat belt when driving at slow speeds or on short trips.**
  All driving is dangerous. Fatalities have been recorded as slow as 12 miles per hour on non-belted occupants. Most crashes occur at speeds less than 40 miles per hour. Of all crashes, 75 percent occur within 25 miles from home.
- **Seat belts are uncomfortable and too confining.**
  Seat belts are designed to allow motion around the vehicle. They provide plenty of freedom without compromising safety. They are designed to activate immediately should a car come to a sudden halt. After regular use, seatbelts are very comfortable.
- **If I wear a seat belt, I might get trapped in a burning car or caught in one underwater.**
  Less than one out of 200 traffic related incidents involve fire or water submersion. Even so, you're much more likely to be knocked out and rendered unconscious if

you're not wearing a belt. Your chances of escape are better while wearing a seat belt.

- **I might be saved if I'm thrown clear of a car in a collision.**
  You are 25 times more likely to be killed in a crash when thrown from a vehicle. The force of an impact can throw you 150 feet...15 car lengths! Seat belts also prevent you from smashing your head into the windshield, which could cause spinal damage.
- **When I see a collision happening, I'll brace myself.**
  Crashes happen in the blink of an eye. It is impossible to prepare for crashes, and the forces generated are enormous.
- **I don't want to offend my passengers by telling them to buckle up.**
  Most people willingly put on seat belts if someone only reminds them.

Airbags

Airbags are passive restraint devices hidden in the steering wheel or dashboard of many cars manufactured today. A passive restraint device is one that operates automatically. In contrast, a seat belt is an active restraint device and must be connected to operate.

Airbags operate in the blink of an eye and do not obstruct driver visibility or reduce driver control. Several sensors are located in the bumper and front engine compartment of a vehicle. You cannot activate an airbag by beating the bumper with a sledgehammer. However, in a frontal crash, these sensors activate simultaneously. When activated, they expel a non-toxic nitrogen gas, which fills a nylon bag. It inflates like a balloon to provide a cushion to passengers propelled forward by the force of an impact.

A common misconception is that one doesn't need to wear seat belts if they have an airbag. This is not true. They should be used in conjunction with lap and shoulder belts for maximum safety. Airbags are designed for frontal crashes, and activate by the sudden impact of 12 miles per hour or more. They do not provide optimum safety in side impact, rear impact, multiple impact or rollover crashes.

Although noisy during filling, they will not damage hearing. The nitrogen gas expelled is non-toxic and cannot cause harm. When the bag inflates, it can push a cigarette aside, but will not usually affect someone wearing eyeglasses. When deflated, a white powder will be seen. This is talc powder and non-toxic. Once an airbag has been activated, it cannot be used again and must be replaced. This will cost about $350. Many insurance companies will cover this expense.

Auto Safety

Gasoline should be stored in tightly capped and labeled safety cans that have flame arresters and pressure-relief valves - never in glass or plastic jugs.

If you must siphon gasoline, use a hand-operated pump - not your mouth.

Never store gasoline in the trunk of your car. The vapors can ignite and cause an explosion. Or, a rear end collision that could otherwise be minor could result in a tragedy.

If your car has a catalytic converter, don't drive through or park in areas of dry grass. The intense heat generated by catalytic converters can ignite these grasses.

Unless you are tuning your car, never run your car with the carburetor air-cleaner removed. The air-cleaner device functions as a flame arrestor in the event the engine backfires. If it is not in place, a backfire can easily ignite spilled gasoline or oil on the engine surfaces.

Never discard smoking materials out the window. Use your ashtray. Carry and maintain an approved fire extinguisher in your car. Know how to use it.

Driving Excellence

The following are the "Five P's" or basic principles for effective driving:

- **Perception** - Perceive the complete picture of what is ahead by rotating your eyes 180 degrees, looking to the horizon and scanning from side to side. That way you will see what is developing before it becomes a problem.
- **Planning** - Go through various driving situations in your mind and think through "escape route" options to prepare yourself beforehand for unexpected hazards.
- **Prevention** - Practice defensive driving and be ready to adjust to the other person's mistakes. Give yourself time to react so that you can remove yourself from another driver's folly.
- **Publicity** - Broadcast your driving intentions early enough so that other drivers have time to react to you. Make eye contact when possible. Avoid sudden movements and be as visible as the situation requires by using turn signals.
- **Proper** - Proper attitude is very important in safe driving. Many collisions are caused by bad decisions influenced by anger, speed and frustration. When emotions run high, recognize and neutralize any tendency to forego safe driving practices.

Driving at Night

While only about one-third of all traffic-related incidents occur at night, more than half of the fatalities stem from nighttime driving. In fact, based on miles driven, there are two and a half times more fatalities at night than during the day. This is because less light is available and vision is restricted. Night vision varies considerably among people. Older people generally cannot see well in the dark and eyestrain can substantially reduce night vision. Bright light, such as lightning or high beam headlights, can cause temporary blindness at night.

Headlights on low beam illuminate the roadside for about 150 feet. On high beam, visibility will be 350 to 400 feet. At 55 miles per hour, it takes 4.5 seconds to cover 350 feet. For night driving, control speed so that your stopping range is within headlight range.

To improve your visibility and the ability of others to see you, do the following:

- Turn your headlights on at dusk, and leave them on until full daylight
- Keep your headlights clean and properly aimed
- Replace burned-out headlights immediately
- Dim your high beams within 500 feet of an approaching vehicle or within 300 feet of a vehicle in front of you
- Never stare into the high beams of another car; guide your vehicle by watching the right edge of the road
- Do not flick your high beams up and down to remind another driver to dim his brights - it can blind him temporarily
- Never use high beams when going into a curve
- Keep your windshield clean, inside and out
- Keep your instrument panels dim
- Keep your eyes moving; avoid focusing on any one object
- Keep a bottle of windshield or glass cleaner in the cab for mirrors and interior windshields
- Keep your windows clean. Wiping the blades with club soda or carbonated water will significantly reduce streaking.
- If the washing solution under your hood does not leave the glass clean after 10 wiper cycles, replace the blades and/or use a stronger concentration of washing fluid
- Between 11 p.m. and 3 a.m., be particularly alert for drunk or drowsy drivers. If you notice another car with erratic speeds, weaving across lanes, or delayed starts at intersections, use extreme care in passing.

Driving in Bad Weather

Bad weather affects your ability to control your vehicle. Stopping on wet pavement takes approximately twice the distance as stopping on dry pavement. Leave extra space between you and the vehicle in front of you in any kind of weather.

About six times more people are killed on wet roads than on snowy and icy roads combined, and when it starts to rain; the roads are the most slippery. When the road is wet, your vehicle "hydroplanes" - the front tires literally lift so that the vehicle is riding on a film of water rather than the actual pavement. Hydroplaning begins at speeds as low as 35 miles per hour if the tires are worn. Do the following when driving on wet roads:

- Keep your mirrors cleared of water
- Avoid sudden braking and sudden moves of the steering wheel
- If you are about to go through a large standing pool of water, slow down and turn on your wipers before you hit the water. As you leave the water, tap the brake lightly a few times to dry it out. If the car pulls to one side, pump the brake slowly and smoothly to dry the brake out.
- If you begin to hydroplane, hold the wheel steady, take your foot from the accelerator and gently pump the brake. If you turn the wheel from side to side to try and get down through the water, or if you jam on the brake, you probably will skid.

Animals in the Road

If you encounter an animal running into the road, do the following:

- Gauge your reaction by the size of the animal and your vehicle speed.
- Try to avoid the animal by slowing or swerving, but remember that it is better to hit a small animal (dog, cat) than to risk losing control of the vehicle.
- Hitting a large animal (horse, deer, cow) will have an impact equal to hitting another vehicle. Remove your foot from the accelerator, steer the vehicle in the opposite direction from the one in which the animal is running and be prepared for the animal to stop suddenly. Do not jam on the brake. Keep all steering wheel and brake motions smooth.
- Be alert for children who may run after the animal.

Tire Blowout

Front tire blowouts are most dangerous, because loss of a front tire dangerously interferes with the steering of the car. You may hear an explosive boom, and the vehicle will veer suddenly to the side of the blown-out tire. To regain control, follow these steps:

- Take your foot off the accelerator, giving the car a chance to slow down
- Hold the steering wheel firmly with both hands - expect it to be difficult to steer
- When you have gained control of the steering, put on the brake slowly; avoid locking the wheels.
- Come to a gradual and complete stop, if you can, off of the roadway so that you can change the tire safely.

Brake Failure

In case of brake failure, do the following:

- Attempt to slow the vehicle, both manual and automatic, by downshifting
- Then gently apply your parking brake. You cannot pump an emergency brake. Remember that this is a cable brake. The rear wheels may lock if you apply too much force and the vehicle will probably pull to one side.
- Pump the brake pedal rapidly. It may build up pressure in the brake lines and restore some braking force.
- If you have to collide with something, choose an impact-absorbing object, such as a clump of shrubs or a chain-link fence. Avoid head-on collisions - sideswipe whatever you hit.
- At slow speeds, simply turn off the engine and let the vehicle coast to a stop.

Vehicle Crashes

Unfortunately, vehicle crashes occur. Most often citizens will be at the scene of the crash before fire units are there and it is important that they know what to do correctly or, in some cases, what not to do.

- Be sure that someone has called 9-1-1.
- Is the scene itself life threatening? For example, a car hits a tanker that is now leaking an unknown substance. Since you are dealing with an unknown, the patient should immediately be removed a safe distance from the leak regardless of his condition. As best as possible, however, immobilize the patient's head and neck during movement.
- If the scene is not immediately life threatening, assess the patient's condition and manage critical situations first. Does the patient have a clear airway? Is the patient breathing? Is there excessive bleeding?
- If you know CPR, and the patient needs it, administer it immediately. If there is excessive bleeding anywhere, apply direct pressure to the wound with a dry, clean cloth.
- If there is no immediate danger to the patient and he doesn't need any management of the ABC's, do nothing. Keep the patient as he is in the vehicle until fire units can get on the scene. There may be cervical spine damage of which you are unaware and movement by the patient could only make it worse. Many times, people who have just been in a car crash will want to jump out of the car and move about. But as best as you are able, keep them still.
- The scene can be a combination of environmental hazards such as downed electrical wires, unknown substance leakage, gasoline spills, and fire. If you are on the scene before law enforcement officers or fire units, be aware of such dangers.
- Often, spilled gasoline is present. Allow no smoking. Turn all vehicle ignitions off.
- If the car is on fire and firefighting personnel have not yet arrived, decide if you can remove the passengers quickly enough or whether you should fight the fire. If the passengers are not trapped, move them first. If they cannot be extricated quickly, deal with the fire. The main cause of most vehicle fires after a crash is from a ruptured fuel tank or fuel lines that have been ignited by internal or external sources. The most common ignition point, however, is under the hood, which rarely presents a serious hazard to vehicle occupants unless combustion is enhanced by gasoline. Most under the hood fires will not spread unless fueled by an external source.

- Once emergency units do arrive, tell them what you know and then get out of their way. They are trained professionals and know what to do from that point.